Title (en)

A common plant model for modelling of physical plant items of a production plant

Title (de)

Gemeinsames Anlagenmodell zur Modellierung einer physischen Anlage einer Produktionsanlage

Title (fr)

Modèle d'usine commun pour simuler des éléments physiques d'une installation d'une usine de production

Publication

EP 3026607 A1 20160601 (EN)

Application

EP 14195378 A 20141128

Priority

EP 14195378 A 20141128

Abstract (en)

The present invention discloses a common plant model for modelling of physical plant items of a production plant within a Manufacturing Execution System (MES), comprising: a) a node type model aggregating different aspects for the modelling of a single physical plant item involving public interface parameters as well as automation parameters; b) a number of nodes, each representing an instance of a node type; c) a library model comprising a project library and a global library, said libraries comprising a node type model, a facet model and a rule model as well as a hierarchy model, d) a wiring chart model defining the interaction between interface members of different facets of the nodes; e) a graph model representing physical and/or logical connections between the nodes, wherein f) the hierarchy model comprises a number of hierarchy definitions; g) each hierarchy definition comprises a number of hierarchy levels and optionally a number of hierarchy level constraints among those hierarchy levels; and h) each node is assigned to at least one of said hierarchy definitions and to at least one hierarchy level within the assigned hierarchy definition. This common plant model therefore provides a standardized architecture for the modelling of the hierarchies for the physical plant items which can be used by a plurality of different user that are in a business relation to the physical plant items. In particular, the SCADA system and the DCS system have now access to the distinct modelling of their individual hierarchical needs within the environment of the MES which is with respect to the execution and the control of the production of the plant the predominant system.

IPC 8 full level

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CPC (source: EP US)

G06F 30/18 (2020.01 - US); **G06Q 10/06** (2013.01 - EP US); **G06Q 10/10** (2013.01 - EP US); **G06Q 50/04** (2013.01 - EP US); Y02P 90/30 (2015.11 - EP US)

Citation (search report)

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CN116383669A

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